

Name of the Student: _____

Max. Marks : 17 Marks

Time : 17 Minutes

Mark Schemes

Q1.

(a) C (only)

1

(b) A (only)

1

[2]

Q2.

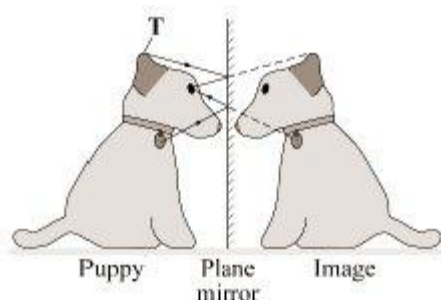
(a) reflection at the mirror of ray from tip of real puppy's ear to real puppy's eye (1)
may be drawn freehand

accurate (1)

ruler must have been used and the reflected ray is an extension of the straight line from point virtual ear however the virtual part of the line need not be shown

arrow to show correct direction (1)

*only one arrow needs to be shown but there must be no contradiction
example of (3) mark response*



3

(b) flat

*accept 'it's not curved/bent'
accept 'it's straight'*

1

[4]

Q3.

(a) the bigger the surface area, the faster the water cools down / temperature falls
*answers must imply rate
accept heat for temperature provided rate is implied*

(b) any **two** from:

the ears:

- have large surface / area
not just has large ears
- radiate heat
*accept loses heat, but does not score
if the reason given for heat loss is wrong*
- keep blood cooler

2

(c) (i) radiation

1

(ii) conduction

1

[5]

Q4.

(a) (i)

correct order essential

(A =) a microphone

1

(B =) an oscilloscope

or cathode ray oscilloscope or CRO

1

(ii) the amplitude

accept any unambiguous indication

1

(iii) quieter / softer

*do **not** accept less (which could refer to the amplitude, frequency or wavelength)*

1

(b) sound cannot travel through a vacuum / (empty) space / free space

accept there is no medium for the sound to travel through

1

(because) there is / are nothing / no particles to vibrate

accept (because) there is / are nothing / no particles between them and the source (of the sound)

1

[6]